

CLAIMS

What is claimed is:

1. An intelligent interactive call handling system, comprising:
 2. a central office operable to trigger a query responsive to receiving a
 3. call request for a called party;
 4. a service control point coupled to the central office, the service control
 5. point operable to receive the query, and trigger an internet call routing query;
 6. an internet call routing system coupled to the service control point, the
 7. internet call routing system being operable to receive the internet call routing query,
 8. determine presence of the called party with respect to at least one registered
 9. communication device, send a prompt to the called party at said at least one registered
 10. communication device responsive to the presence determination, receive a reply from
 11. said at least one registered communication device, and route the call responsive to the
 12. reply.
2. The system of claim 1, further comprising a certificate authority
3. coupled to the internet call routing system, the certificate authority being operable to
4. authenticate the called party by searching a customer database for current subscription
5. and payment information.
3. The system of claim 1, further comprising a presence engine coupled
2. to the internet call routing system, the presence engine being operable to determine
3. the presence of any of said at least one registered communication device.

1 4. The system of claim 1, wherein the internet call routing query
2 comprises an account number associated with the called party, a phone number
3 associated with the called party, a registration identification associated with the called
4 party, and a certificate associated with the called party.

1 5. The system of claim 1, further comprising a gateway coupled between
2 the service control point and the internet call routing system, the gateway being
3 operable to translate protocols between the signaling system-7 protocol and the
4 internet protocol.

1 6. The system of claim 1, further comprising at least one of a short
2 message service server, an electronic mail server, an instant messaging server and a
3 simple object access protocol server, said server(s) being coupled to the internet call
4 routing system, and being operable to forward the prompt to a registered
5 communication device responsive to instructions from the internet call routing
6 system.

1 7. An internet call routing system, comprising:

2 receive logic operable to receive a call query from a service control

3 point via a gateway;

4 presence logic coupled to the receive logic, the presence logic being
5 operable to determine whether a called party associated with the call query is present
6 with respect to at least one registered communication device associated with the
7 called party;

8 user-interface logic coupled to the presence logic, the user-interface
9 logic being operable send a prompt to the called party via said at least one registered
10 communication device responsive to the presence determination, and receive a reply
11 from the called party; and

12 forwarding logic coupled to the user interface logic, the forwarding
13 logic being operable to forward a call associated with the call query responsive to the
14 reply.

1 8. The system of claim 7, further comprising:

2 a database operable to store a profile associated with the called party
3 including a list comprising said at least one registered communication device, the
4 database being operable to provide the list associated with the called party to the
5 presence logic.

1 9. The system of claim 7, wherein the user-interface logic comprises at
2 least one of a short message server, an electronic mail server, a simple object access
3 protocol server, and an instant messaging server.

1 10. The system of claim 7, wherein the call query comprises an account
2 number associated with the called party, a phone number associated with the called
3 party, a registration identification associated with the called party, and a certificate
4 associated with the called party.

1 11. The system of claim 10, further comprising authentication logic
2 coupled to the receive logic operable to employ the certificate associated with the
3 called party to authenticate the called party.

1 12. The system of claim 11, wherein the authentication logic authenticates
2 the called party, and assures that the called party continues to subscribe to a service
3 provided by the internet call routing system.

1 13. The system of claim 7, further comprising a rules engine, the rules
2 engine being coupled to the presence logic, the rules engine being operable to parse at
3 least one rule associated with the called party, and the user-interface logic is operable
4 to send a prompt to the called party via said at least one registered communication
5 device responsive to the presence determination and rules engine, and receive a reply
6 from the called party.

1 14. The system of claim 7, wherein said at least one registered
2 communication device comprises at least one of a cellular phone and an internet
3 protocol phone.

1 15. A method of providing intelligent interactive call handling, comprising
2 the steps of:

3 receiving a call query from a service control point via a gateway;
4 determining whether a called party associated with the call query is
5 present with respect to at least one registered communication device associated with
6 the called party;

7 sending a prompt to the called party via said at least one registered
8 communication device responsive to the presence determination;

9 receiving a reply from the called party via said at least one registered
10 communication device; and

11 connecting the call responsive to the reply.

1 16. The method of claim 15, wherein the method further comprises:
2 storing a profile associated with the called party including a list
3 comprising said at least one registered communication device, the database being
4 operable to provide the list associated with the called party to the presence logic.

1 17. The method of claim 16, wherein the method further comprises:
2 storing a profile associated with the called party, the profile also
3 including at least one rule for sending the prompt to the called party.

1 18. The method of claim 17, further comprising:
2 parsing said at least one rule prior to sending the prompt to the called
3 party; and

4 sending a message to the called party via said at least one registered
5 communication device responsive to the parsing and the presence determination.

1 19. The method of claim 18, wherein the prompt is an internet-based
2 message.

1 20. The method of claim 15, further comprising:
2 using at least one of a short message server, an electronic mail server, a
3 simple object access protocol server, and an instant messaging server, to send the
4 message to the called party via said at least one registered communication device
5 responsive to the presence determination..

1 21. The method of claim 20, wherein said at least one registered
2 communication device includes at least one of a cellular phone and an internet
3 protocol phone.

1 22. The method of claim 15, wherein the call query comprises an account
2 number associated with the called party, a phone number associated with the called
3 party, a registration identification associated with the called party, and a certificate
4 associated with the called party.

1 23. The method of claim 22, further comprising using the certificate
2 associated with the called party to authenticate the called party.

1 24. A method of providing intelligent interactive call handling, comprising
2 the steps of:

3 receiving a call query from a service control point via a gateway;
4 determining whether a called party associated with the call query is
5 present with respect to at least one registered communication device associated with
6 the called party;

7 sending a prompt to the called party via said at least one registered
8 communication device responsive to the presence determination;

9 receiving a reply from the called party via said at least one registered
10 communication device; and

11 connecting the call responsive to the reply.

1 25. The method of claim 24, wherein the method further comprises:

2 storing a profile associated with the called party including a list
3 comprising said at least one registered communication device, the database being
4 operable to provide the list associated with the called party to the presence logic.

1 26. The method of claim 25, wherein the method further comprises:

2 storing a profile associated with the called party, the profile also
3 including at least one rule for sending the prompt to the called party.

1 27. The method of claim 26, further comprising:

2 parsing said at least one rule prior to sending the prompt to the called
3 party; and

4 sending a message to the called party via said at least one registered
5 communication device responsive to the parsing and the presence determination.

1 28. The method of claim 27, wherein the prompt is an internet-based
2 message.

1 30. The method of claim 29, wherein said at least one registered
2 communication device includes at least one of a cellular phone and an internet
3 protocol phone.

1 31. The method of claim 24, wherein the call query comprises an account
2 number associated with the called party, a phone number associated with the called
3 party, a registration identification associated with the called party, and a certificate
4 associated with the called party.

1 32. The method of claim 31, further comprising using the certificate
2 associated with the called party to authenticate the called party.